

1. An isolated nucleic acid molecule encoding a polypeptide comprising the amino acid sequence of SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:16, or SEQ ID NO:19.

2. The isolated nucleic acid molecule of claim 1, wherein the polypeptide consists of the amino acid sequence of SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:16, or SEQ ID NO:19.

3. An isolated nucleic acid molecule encoding a polypeptide comprising at least 25 contiguous amino acids of the amino acid sequence of SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:16, or SEQ ID NO:19.

4. The isolated nucleic acid molecule of claim 3, wherein the polypeptide comprises at least 50 contiguous amino acids of the amino acid sequence of SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:16, or SEQ ID NO:19.

5. An isolated nucleic acid molecule comprising at least 50 contiguous nucleotides of the nucleotide sequence of SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:7, SEQ ID NO:15, SEQ ID NO:17, SEQ ID NO:18, or SEQ ID NO:20.

6. The nucleic acid molecule of claim 5, wherein the nucleic acid molecule comprises at least 100 contiguous nucleotides of the nucleotide sequence of SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:7, SEQ ID NO:15, SEQ ID NO:17, SEQ ID NO:18, or SEQ ID NO:20.

7. The nucleic acid molecule of claim 5, wherein the nucleic acid molecule comprises the nucleotide sequence of SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:7, SEQ ID NO:15, SEQ ID NO:17, SEQ ID NO:18, or SEQ ID NO:20.

8. An isolated nucleic acid molecule encoding a fusion protein containing at least one pyrin domain, nucleotide binding site (NBS) domain, or leucine rich repeat domain

of SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:13, SEQ ID NO:16, or SEQ ID NO:19.

9. An isolated nucleic acid molecule that hybridizes to a nucleic acid molecule consisting of the nucleotide sequence of SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:7, SEQ ID NO:15, SEQ ID NO:17, SEQ ID NO:18, or SEQ ID NO:20 under conditions of incubation at 45°C in 6.0X SSC followed by washing in 0.2X SSC/0.1% SDS at 65°C.

10. The isolated nucleic acid molecule of claim 1, further comprising vector nucleic acid sequences.

11. A host cell containing the nucleic acid molecule of claim 1.

12. An isolated polypeptide comprising the amino acid sequence of SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:13, SEQ ID NO:16, or SEQ ID NO:19.

13. The isolated polypeptide of claim 12, wherein the polypeptide consists of the amino acid sequence of SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:13, SEQ ID NO:16, or SEQ ID NO:19.

14. An isolated polypeptide comprising at least 25 contiguous amino acids of the amino acid sequence of SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:13, SEQ ID NO:16, or SEQ ID NO:19.

15. The isolated polypeptide of claim 14, wherein the polypeptide comprises at least 50 contiguous amino acids of the amino acid sequence of SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:13, SEQ ID NO:16, or SEQ ID NO:19.

16. A fusion protein containing at least one pyrin domain, NBS domain, or LRR domain of SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:13, SEQ ID NO:16, or SEQ ID NO:19.

5           17. An antibody which selectively binds to a polypeptide comprising the amino acid sequence of SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:13, SEQ ID NO:16, or SEQ ID NO:19.

10           18. A method for producing a polypeptide comprising the amino acid sequence of SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:13, SEQ ID NO:16, or SEQ ID NO:19, the method comprising culturing the host cell of claim 11 under conditions in which the polypeptide is expressed.

15           19. A method for detecting the presence of a polypeptide in a sample, the method comprising:

          (a) contacting the sample with a compound that selectively binds to a polypeptide comprising the amino acid sequence of SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:13, SEQ ID NO:16, or SEQ ID NO:19; and

          (b) determining whether the compound binds to a polypeptide in the sample.

20           20. A kit comprising a compound that selectively binds to the polypeptide of claim 12, and instructions for use.

25           21. A method for detecting the presence of a nucleic acid molecule in a sample, the method comprising:

          (a) contacting the sample with a nucleic acid probe or primer which selectively hybridizes to the nucleic acid molecule of SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:7, SEQ ID NO:12, SEQ ID NO:14, SEQ ID NO:15, SEQ ID NO:17, SEQ ID NO:18, or SEQ ID NO:20; and

30           (b) determining whether the nucleic acid probe or primer binds to a nucleic acid molecule in the sample.

22. A method for identifying a compound that binds to a polypeptide, the method comprising the steps of:

- 5 (a) contacting a cell or a sample comprising a polypeptide comprising the amino acid sequence of SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:13, SEQ ID NO:16, or SEQ ID NO:19 with a test compound; and
- (b) determining whether the polypeptide binds to the test compound.

10 23. A method for identifying a compound that modulates the activity of a polypeptide, the method comprising:

- (a) contacting a polypeptide comprising the amino acid sequence of SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:13, SEQ ID NO:16, or SEQ ID NO:19 with a test compound; and
- 15 (b) determining the effect of the test compound on the activity of the polypeptide to thereby identify a compound which modulates the activity of the polypeptide.

20 24. A method for modulating the activity of a polypeptide, the method comprising contacting a polypeptide comprising the amino acid sequence of SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:13, SEQ ID NO:16, or SEQ ID NO:19, or a cell expressing the polypeptide, with a compound that binds to the polypeptide in a sufficient concentration to modulate the activity of the polypeptide.